

## A NEW SPECIES REPRESENTING THE FIRST RECORD OF THE FAMILY TEUTONIIDAE FROM CHINA (ACARI, HYDRACHNELLAE, LEBERTIOIDEA)

GUO JianJun<sup>1</sup>, JIN DaoChao<sup>2</sup>

1. Institute of Zoology, Chinese Academy of Science, Beijing 100080, China  
2. Institute of Entomology, Guizhou University, Guiyang 550025, China

**Abstract** A species of the family Teutoniidae Koenike, 1910, which is a new record to China, is described: *Teutonia (Subteutonia) piloseta*. The pectinated peg-like setae, the number of palpal setae and only partially surrounded (open medially) Ep easily distinguish this species from others in the group. The disposition of glandularia and ocularia in the new species are described and illustrated in detail.

**Key words** Acari, Lebertioidea, Teutoniidae, *Teutonia*, new species, new record.

The water mite family Teutoniidae is currently represented by two genera, *Teutonia* Koenike, 1889 and *Limnolegeria* Motas, 1928 and the former is divided into the subgenera *Teutonia* and *Subteutonia* Habeeb, 1958. The family is not particularly diverse, with only seven species named from around the world.

We have discovered the first representatives of the family from China, which represents a new species, here named *Teutonia (Subteutonia) piloseta*. The distribution of glandularia is illustrated in detail. The type specimens of the new species are deposited in the Institute of Entomology, Guizhou University. Measurements in the text are given in  $\mu\text{m}$ .

The abbreviations and terms used in text follow Jin (1997) : A<sub>1</sub>, A<sub>2</sub>: antennal glandularia 1 and 2. D<sub>1</sub>-D<sub>4</sub>: dorsoglandularia 1-4. E<sub>1</sub>-E<sub>4</sub>: epimeroglandularia 1-4. L<sub>1</sub>-L<sub>4</sub>: lateroglandularia 1-4. O<sub>1</sub>, O<sub>2</sub>: ocularia 1 and 2. V<sub>1</sub>-V<sub>4</sub>: venteroglandularia 1-4. Ep

-Ep : epimera . AEG: anterior epimeral group (Ep + Ep ). Ap: anal pore. Gf: entire genital field, width measured by outer margin of both sides. Ib: infracapitulum bay (capitular bay). PEG: posterior epimeral group (Ep + Ep ). MD PEG: median distance of post-median angle of Ep . ML AEG: median length from posterior limit of Ib to posterior end of Ep . ML Ep : median length from posterior limit of b to posteriorend of Ep . Ib-Ap: distance between posterior limit of b and edge of Ap.

b-Gf: distance from b to anterior edge of Gf.  
b-PEG: distance between b to the median angle of PEG. -L-3-6, etc: first leg's segment 3-6, etc. P-

-P : palpal segment 1-5.

### Teutonidae Koenike, 1910

Koenike, 1910. Abh. Naturw. Ver. Bremen, 20: 144. Type genus: *Teutonia* Koenike, 1889.

**Diagnosis.** See Cook (1974) and Gerecke (1988).

### Genus *Teutonia* Koenike, 1889

Koenike, 1889. Zool. Anz., 12: 104. Type species: *Teutonia cometes* (Koch).

**Diagnosis.** Cook (1974).

### Subgenus *Subteutonia* Habeeb, 1958

Habeeb, 1958. Leaflets Acadian Biol., 18: 1. Type species: *Teutonia setifera* Habeeb, 1958.

**Diagnosis.** Characters of the genus *Teutonia*; ventral side of P without a ventral projection; E<sub>4</sub> on Ep may be either completely surrounded by sclerotization or only partially surrounded (open medially). P with a very long lateral seta. P-V divided.

*Teutonia (Subteutonia) piloseta* sp. nov. (Figs. 1-8)

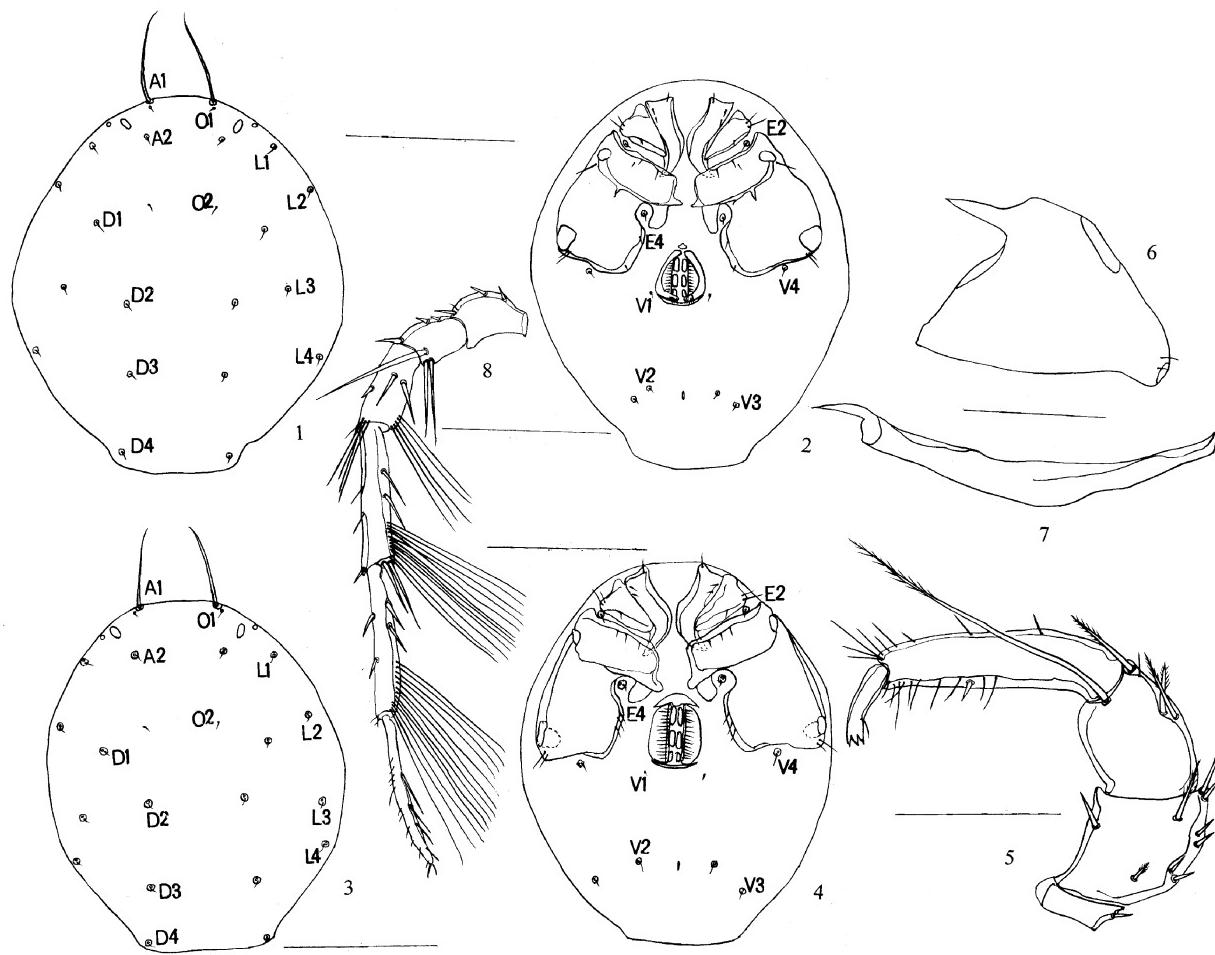
**Male.** Body oval, 1 099 in length, 949 in width. Integument soft, faintly lined. Lateral eyes not in capsule; median eye absent. A<sub>1</sub> very long and smooth; O<sub>1</sub> closely posterior to A<sub>1</sub>; distance between A<sub>2</sub> longer than that between either A<sub>1</sub>, or O<sub>1</sub> and or O<sub>2</sub>. Four epimeral groups; distance between anterior tip of Ep to posterior end of Ep 541; AEG 206 in length, posterior apodeme ceratoid, extend under PEG. Distance between Ep small, just a suture, 1.7 in width; Ep with a small median apodeme, distance between Ep

The study were supported by The National Natural Science Foundation of China (30070103) and The Research Fund for the Doctoral Program of Higher Education.

Received 20 Apr. 2004, accepted 17 Aug. 2004.

43, median edge of PEG 327 in length.  $E_2$  at the place between AEG and PEG,  $E_4$  at the ante-median angle, only partially surrounded (open medially). Gf 184 in length, the widest part 101 in width; genital flaps well developed, with 3 pairs of elongated acetabula. Posterior part of acetabula plate with many setae, postgenital sclerites narrow.  $V_1$  at both sides of Gf,  $V_2$  at both sides of Ap,  $V_4$  under the posterior edge of Ep. Distance between posterior edge of AEG to anterior edge of Gf 164, distance between posterior edge of AEG to Ap 559. Infracapitulum 171 in length, dorsal apodeme sharp, without ventral apodeme; chelicera 238 in length. Dorsal lengths of palp segments:  $P^-$ , 26;  $P^-$ , 101;  $P^-$ , 76;  $P^-$ , 153;  $P^-$ , 38.  $P^-$  with a small dorsal peg-like seta.  $P^-$  with 9 peg-like setae, of which the most anterior one and the lateral two

pectinated;  $P^-$  with 3 peg-like setae, 1 seta and 1 heavy seta, of which 3 peg-like setae and 1 heavy seta pectinated, the most anterior dorsal peg-like seta longer than the other peg-like seta, but not exceed half of  $P^-$ ; the heavy seta longest, exceed the length of  $P^-$ , almost reach to the tip of  $P^-$ .  $P^-$  with 10 ventral normal setae and 1 small peg-like seta and 9 dorsal setae.  $P^-$  with 1 ventral seta, claw divided. Dorsal lengths of L-terminal segments: -L-4, 191; -L-5, 179; -L-6, 217; Dorsal lengths of L-terminal segments: -L-4, 194; -L-5, 219; -L-6, 231. L- and L- without swimming seta, swimming setae on legs: L- -3, 5; L- -4, 15; L- -5, 11; L- -3, 5; L- -4, 12; L- -5, 14. L- without claw but two setae-like structures at the tip of leg.



Figs. 1-8. *Teutonia (Subteutonia) piloseta* sp. nov. 1. Dorsum. 2. Venter. 3. Dorsum. 4. Venter. 5. Palp. 6. Infracapitulum. 7. Chelicera. 8. -L-4, 5 and 6. Scale bars: 1-4 = 500  $\mu\text{m}$ , 5-7 = 100  $\mu\text{m}$ , 8 = 250  $\mu\text{m}$ .

Female. Body 1119 in length, 991 in width. Distance between anterior tip of Ep to posterior end of Ep 581; AEG 450 in length, midian suture 15. Ep with a bigger median apodeme than that of male,

distance between Ep 151, median edge of PEG 379. Gf 293 in length, 165 in width. Distance between posterior edge of AEG to anterior edge of Gf 124, distance between posterior edge of AEG to Ap 651. Infracapitu-

lum 199 in length, chelicera 290 in length. The most anterior peg-like seta longer than male's, exceed half of P<sub>1</sub>. Dorsal lengths of the palp segments: P<sub>1</sub>, 33; P<sub>2</sub>, 110; P<sub>3</sub>, 86; P<sub>4</sub>, 173; P<sub>5</sub>, 53. Dorsal lengths of L<sub>1</sub> terminal segments: L<sub>1</sub>-4, 210; L<sub>1</sub>-5, 220; L<sub>1</sub>-6, 285; dorsal lengths of L<sub>2</sub> terminal segments: L<sub>2</sub>-4, 249; L<sub>2</sub>-5, 244; L<sub>2</sub>-6, 285. Swimming setae on legs: L<sub>3</sub>-3, 6; L<sub>3</sub>-4, 15; L<sub>3</sub>-5, 11; L<sub>3</sub>-6, 12; L<sub>3</sub>-7, 14.

Colour. Rufous, eyes almost dark.

Holotype ♂, slide 1998-X-231, Maolan (25°09'~25°20' N, 107°52'~108°45' E), Libo, Guizhou, 23 Oct. 1998, by GUO JianJun. Paratypes: 1 ♂, slides 1998-X-232, same date and location as for holotype; 2 ♂♂, slides 1998-X-241 and 1998-X-242, 24 Oct. 1998, same location as for holotype, by GUO JianJun.

Remarks. There are only 2 species belonging to Subteutonia, and the new species can be separated ea-

sily from the known species: Teutonia (Subteutonia) setifera by the pectinated peg-like setae, the number of palpal setae and only partially surrounded (open medially) Ep<sub>1</sub>.

Acknowledgements Special thanks goes to Dr. ZHANG Run-Zhi, Dr. YANG Mao-Fa and Dr. CHEN Xiang-Sheng for information and advice given to the authors. And sincere thanks also goes to JIANG Yu-Lan for her help given to the authors.

## REFERENCES

- Cook, D. R. 1974. Water mite genera and subgenera. Memoirs of the American Entomological Institute. 21, 1~860.  
 Gerecke, R. 1988. Limnolegeria longiseta Motas (Acari, Actinedida): zur Morphologie, systematischen Stellung und Ökologie einer wenig bekannten Wassermilbe, mit Erstbeschreibung der Nymphe. Archiv für Hydrobiologie, 112: 611~626.  
 Jin, D-C 1997. Hydrachnellae-morphology, Systematics, a Primary Study of Chinese Fauna. Guizhou Science and Technique Publish House, Guiyang. 1~356. [金道超, 1997. 水螨分类理论和中国区系初志. 贵州: 贵州科技出版社. 1~356]

## 中国新纪录科条顿螨科及其一新种记述（蜱螨亚纲，水螨群，腺水螨总科）

郭建军<sup>1</sup> 金道超<sup>2</sup>

1. 中国科学院动物研究所 北京 100080  
 2. 贵州大学昆虫研究所 贵阳 550025

**摘要** 记述了中国新纪录科条顿螨科 Teutoniidae Koenike, 1910 条顿螨属 Teutonia 亚条顿螨亚属 Subteutonia 及其 1 新种多毛条顿螨 Teutonia (Subteutonia) piloseta sp. nov.。新种

**关键词** 腺水螨总科, 条顿螨科, 条顿螨属, 新纪录, 新种。

**中图分类号** Q969. 226

须肢羽状栓毛及栓毛数量以及呈半包围状态的 Ep<sub>1</sub> 可以将之与其他亚条顿螨亚属种类区别。文中对其腺毛和眼毛的体位特征做了详细描述。